EPILEPTIC AMBULATORY AUTOMATISM.[1]

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The subject of epileptic equivalents, and especially that form of equivalent known as psychic epilepsy, has of late years received much attention from neurologists and psychiatrists. This condition has been variously described as psychic epilepsy, ambulatory automatism, ambulatory automatism comitial,[2] fugues,[3] dromomania.[4] The following case differs so essentially from those already described that I feel justified in recording it.

J. D., aged sixteen years, office boy by occupation, came to the Polyclinic Hospital complaining of "spells of unconsciousness." His father formerly used alcohol to excess, but otherwise the family history was negative. When two years of age the patient had "inward spasms." The body became rigid, the eyes rolled up, the head was retracted, and he remained in this condition a half hour. A year later the spasm was repeated and lasted several hours. For a year following this convulsion, he acted peculiarly, staring vacantly at times in front of him and refusing to answer questions. He enjoyed excellent health until he was ten years of age when he had several fainting attacks, usually in church, which his parents thought were due to the close atmosphere. About a year ago the present trouble developed. While going about doing his work, people would appear strange to him; should he be talking to anyone, anything they might say appeared peculiar and in a short time he would lose consciousness and walk rapidly away, or carefully scan the wall or the floor. In from two to five minutes consciousness would return and he would remember nothing of the occurrence. In one of the attacks the head was turned to the left, the eyes turned up and out. During the remainder of the day the eyes felt tired and sore. If questioned during the period of unconsciousness he would reply, giving his reasons for whatever he might be doing. In one of the spells he had a quantity of money with him and began to throw it away as he walked along the street. In one of the spells he knocked a glass of medicine from the table. When he regains consciousness there is no dull or heavy feeling or headache. The urine or feces have never been voided during an attack. A glass of water taken during the early part of the attack will prevent it. Muscular twitchings or jerkings have never been present. No hysterical symptoms have been observed. The examination of the patient shows a well-built young man of good color and without visceral disease. Mentality is good and active; he has no failure of memory, no hallucinations or delusions. The reflexes are normal, station is good and the gait is perfect. No disturbance of sensation is detected. Signs of injury to the scalp are not present.

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[1] From the clinic of Dr. W. G. Spiller, Philadelphia Polyclinic. Read before the Philadelphia Neurological Society Oct. 23, 1899. (For discussion on this paper see p. 115).

[2] Charcot, "Lecons du Mardi," 1887-1888, p. 112.

[3] Charcot, "Lecons du Mardi," 1888-1889, p. 303.

[4] Régis, Archiv de Neurologie, 1894.

The number of attacks during the present year by months are as follows: Jan., 2; Feb., 3; Mar., 3; Apr., 6; May, 4; June, 8; July, 10; Aug., 9; Sept., 8.

The nature of the disease upon which the ambulatory automatism presented in this case depends is rather obscure and worthy of a careful study. Ambulatory automatism, or that condition in which an individual consciously or unconsciously performs more or less complex ambulatory acts over which he has no control, is a symptom-complex occurring rather frequently in hysteria, less frequently in epilepsy, occasionally in neurasthenia, and rarely in alcoholism, degeneracy, etc. The ambulatory automatism of hysteria is closely allied to hysterical somnambulism and may be preceded by or follow an hysterical convulsion. It may and often does occur in patients who have never had an outspoken attack of hysteria, and in these cases stands in the same relation to the hysterical convulsion as does the epileptic equivalent to the epileptic convulsion. Charcot[5] would have us consider it an equivalent of the period of passionate attitudes, and refers especially to a noisy, turbulent form of hysterical automatism. It has certain characteristics which serve to differentiate it from the other forms of ambulatory automatism. The attack is rarely, if ever, of short duration and lasts usually hours, days, or even weeks. There are usually other stigmata of hysteria present, but sensory disturbances due to hysteria may be present in epileptic patients. The automatism alternates with, or may be immediately followed by, an hysterical convulsion. The patient may remember what has occurred during the attack, or if there be a complete amnesia, it is possible to develop the entire history of the attack by hypnotizing the patient. This latter symptom has both a clinical and medico-legal value. Motet[6] presented to the Societé Medico-psychologique a patient who had been arrested for entering a public urinal, soaking his handkerchief with water with the intention, he stated, of stopping a nasal hemorrhage. The police hesitated to accept the explanation of the experts of what they considered obscenity, until Motet hypnotized the prisoner and repeated exactly the scene. Pitres[7] also mentions a case in which valuable papers and jewelry lost during the fugue, were recovered by hypnotizing the patient and tracing the articles.

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[5] *Loc cit.*, p. 326.

The ambulatory automatism of neurasthenia differs from that of hysteria, in that the patient is conscious of what he is doing, but impelled by a desire to wander from one place to another, is unable with his weakened will power and indecision to resist the morbid impulse.

Epileptic ambulatory automatism is that form of the affection usually described as psychic epilepsy. There are certain elements in the case reported above which led us to consider it epileptic in nature. The history of convulsions associated with unconsciousness in early life, the reappearance of psychical disturbances at puberty, the conjugate deviation in at least one of the attacks, the complete unconsciousness and the short duration of the ambulatory periods, in the absence of hysterical manifestations, point to an epileptic rather than an hysterical nature of the disease.

The occurrence of convulsions in infancy followed by psychical disturbances at puberty seems to us not unimportant in a diagnosis of epilepsy. We have lately seen at the Polyclinic Hospital an overworked girl of fifteen years, with an alcoholic heredity, who had from two to five epileptic convulsions daily for three years in early childhood. The convulsions entirely disappeared without treatment and she remained perfectly well up to the time of her first menstruation. Four days after the first appearance of the menses, a severe epileptiform convulsion occurred, and since that time she has had several convulsions.

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[6] Mahet et Mesnet, quoted by Semelaigne, Annal. méd-psych., 19, 1894.

[7] Pitres. Ref. in Arch de Neurologie, 1892.

Gowers[8] also mentions a case very similar to this, of a boy who had isolated convulsions at three, five and seven years and at puberty true epilepsy with severe convulsions developed.

The short duration of the attacks never extending over a few minutes, and the complete unconsciousness during the period, also speak in favor of epilepsy. Attacks of such short duration rarely, if ever, occur in hysteria. Two cases at least are on record of an epileptic nature. Semelaigne[9] mentions the case of a man who in the midst of a conversation would suddenly lose consciousness, walk rapidly forward, then backwards and resume the conversation as if nothing had occurred. Mesnet[10] records the case of a judge who arose from his place in court, left the room and walked for about five minutes, returning to take up the work he so suddenly left.

The great majority of the cases of epileptic automatism reported have extended over a much longer period of time, but there is always a question in such cases of some mental disease complicating the epilepsy. In some of the cases reported, the clinical picture resembles that seen in the intoxications of various kinds.

The conjugate deviation noted in one of the attacks seems to be the only purely spasmodic muscular contraction in the course of the disease.

The ambulatory symptoms are not purely automatic and never spasmodic. They appear to be the result of a pathologic ideation after unconsciousness develops, or, to be more accurate, a retention of the faculty to carry on simple intellectual processes and to act on them during a pathological or abnormal condition of the consciousness. In all of the attacks in which the patient has been questioned he has given his reasons for his peculiar actions. He examined the sidewalk carefully in one attack because he "wanted a tape measure and thought it should be measured;" in another attack he stated that he wanted "to go home," etc., etc. The answers are different in each attack and appear to bear no relation to any idea or conversation prior to the attack. There does not appear to be any fixed idea dominating his actions as frequently occurs in hysteria. In many respects the mental state in this and many of the cases of longer duration resembles that of the condition described as double personality.

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[8] Gowers, "Dis. of the Nervous System," V, ii.

[9] Semelaigne, Annal. méd.-psychologique, 19, 1894, p. 71.

[10] Mesnet, Archiv gen'l. de Méd., 1860, p. 147.

The use of the bromides and bromalin in this case has not served to decrease the number of the attacks per month, but has shortened the period of the attack and prolonged the aura. As a result of this change he is often able, by securing a drink of water, to prevent an attack. In Charcot's case the attacks disappeared for a long time under the use of bromides and reappeared when the treatment was discontinued. Charcot considered this fact of much value and gave no other reason for his diagnosis of epileptic ambulatory automatism.

This condition together with the many other peculiar manifestations of masked epilepsy, described in recent years, indicates the difficulties in classification of epileptic conditions for practical clinical work. The somewhat arbitrary division of epilepsy into petit mal and grand mal, and the division of the latter into the aura, initial cry, tonic, clonic and post-convulsive phenomena of most text-books, while very valuable for teaching and demonstrating purposes, yet in the scientific investigation in our daily clinical work find rather a limited field of usefulness. The text-books tell us that petit mal is a condition of unconsciousness lasting a few minutes and at times associated with minor motor disturbances, and yet we find that Cabode[11] looks on unconsciousness lasting many hours and associated with complex automatism as an extended form of petit mal. The very small percentage of cases of grand mal having an initial cry, the relatively small proportion with a distinct aura, the variation in the presence and relation of the tonic and clonic stages, and the very wide variation of the post-convulsive phenomena and equivalents, all indicate the necessity of a detailed description of epileptic phenomena independent of the broad classification noted above. It is only through some of the minor manifestations of epilepsy that we can expect to get the key to the pathogenesis of the disease. From a purely clinical standpoint we can divide epileptic manifestations into those purely psychical, purely motor, or purely sensory, or combinations of any or all of these. In his classification our case would be a psycho-motor form of epilepsy. All of the equivalents of epilepsy could be arranged according to this classification with the possible exception of the attacks of profuse perspiration which sometimes occur. If we accept the cortical control, or rather influence over blood pressure, as the experiments of v. Bechterew and others would seem to demonstrate, this profuse perspiration would be considered as a motor manifestation affecting the coats of the vessels.

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[11] Cabode, Arch. clin. de Bordeaux, April, '95.

In the discussion of ambulatory automatism in this paper I have left out of consideration the ambulatory automatism due to traumatism, alcohol, dipsomania, and degeneracy, because none of these factors were concerned in our case.

Many of the cases due to traumatism of the head are manifestations of a marked form of traumatic epilepsy, as Dewarze[12] has already pointed out. There are also cases where traumatic hysteria was present. Dipsomania as a manifestation of epilepsy and its association with ambulatory automatism has also been described,[13] but the relation may be considered as accidental rather than causative.

The ambulatory automatism of the insane has little interest in this connection, but the following case of automatism in a high-grade imbecile with epileptic attacks is interesting:

I. A., aged thirty-two years, was a high-grade imbecile at the Pennsylvania Training School for Feeble-Minded Children, who had epileptic convulsions once in three or four weeks. About a week before the convulsions occurred he had attacks in which he arose from his chair, dropped whatever might be in his hands and patrolled the rooms like a sentry, sometimes turning to the right. He got up from his chair at times and usually made one turn, seldom more. Often, a few days before he had his spasms, he got up at night, put on his clothes and wandered away from his room, and once escaped from the building. He was delusional at times. In one of the attacks he suddenly arose from his chair, turned once fully to the right, with a perceptible change in the color of the face, and then he sat down saying, with forcible shaking of the right hand: "Don't do that." His urine showed a slight trace of albumin. I am indebted to Dr. C. K. Mills for the report of the above case.

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[12] Dewarze, Prog. méd., Nov. 16, 1895.

[13] Songues, Archiv. de Neurologie, 1892, t. xxiv.

I am also indebted to the kindness of Dr. Spiller in permitting me to use the material of the clinic for the preparation of the paper.

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19. REMOTE RESULTS IN ARTISAN'S PALSY. F. Savary Pearce (University Medical Magazine, 11, 1899, p. 578).

Pearce divides occupation neuroses into two great classes, the neurasthenic and the non-neurasthenic. The majority of cases are neurasthenic. The neurasthenic condition is the predisposing cause, the constant use of one member in a monotonous and limited movement is the exciting cause, and to these must be added the irritation of products of metabolism, formed in excess, or improperly eliminated, which is a factor that causes a really greater disturbance in the nervous system than is manifested in the affected part. The non-neurasthenic cases are more nearly of a purely local nature. These he subdivides into muscular, neuritic (neuritis or not), and vascular, or arterial. The muscular cases are exemplified in a brakeman, or a street car driver, in whom the constant using of the brake caused a soreness in the flexor muscles of the forearm. There was no tenderness of the nerves, or heat in the tissues. In the neuritic type there is a peripheral neuron irritability which may become a subacute neuritis. Telegraphers are of this class, and in most of them it is found that the ulnar nerve is not sufficiently protected by the tissues from pressure, or that they work with the arm in an improper position. A correction of their position, or the wearing of a pad about the elbow while at work, tends to prevent recurrence. Vascular cases are subdivided into neurasthenic and non-neurasthenic. The chief symptom of this type is paresthesia of the fingers and forearms, changing into all forms of delayed sensation, and cold and clammy hands. This condition occurs in young persons under thirty, and so can be easily differentiated from arteriosclerosis. An example of the neurasthenic type is a woman, overworked and anemic, who for years sewed upon a machine. The numbness in her fingers was caused by the constant irritation of the goods passing through them as she fed the machine.

The treatment for all kinds of occupation neuroses is rest, massage and galvanism, but appropriate treatment for the neurasthenic condition is essential. Pearce thinks that about one-half of all cases of artisan's palsy get nearly well, and about one-third of the other half get entirely well. An average of five years he considers to be about the time required for recovery in an average case of the neuritic type. In the muscular and vascular types recovery promptly follows the removal of the cause. In all neurasthenic cases, however, recovery is more slow. He cites a number of cases illustrating his classification, and the relation between artisan's palsy, neurasthenia, and uric acid diathesis, and the benefit to be derived from changes of climate. BONAR.